

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

# UTILITY PATENT APPLICATION TRANSMITTAL

(only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1875.1540002/RES/LMY
First Inventor	Thomas D. KWON
Title	Receiver Having Decisional Feedback Equalizer With Remodulation and Related Methods
Express Mail Label No.	

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

## ADDRESS TO:

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 25]  
(preferred arrangement set forth below)
  - Descriptive title of the Invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 9]
5. Oath or Declaration [Total Pages 9]
  - a. ☐ Newly executed (original or copy)
  - b. ☒ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
    - i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s)  
named in the prior application, see 37 CFR  
1.63(d)(2) and 1.33(b).
6. ☒ Application Data Sheet. See 37 CFR 1.76.

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program  
(Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ paper
  - c. ☐ Statements verifying identity of above copies

22581 U.S. PTO  
10/724036



## ACCOMPANYING APPLICATION PARTS

9. ☒ Assignment Papers (cover sheet & document(s))
10. ☒ 37 CFR 3.73(b) Statement ☒ Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☒ Information Disclosure Statement (IDS)/PTO-1449 ☒ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☒ Other: Authorization to Treat a Reply as Incorporating an Extension of Time Under 37 C.F.R. § 1.136(a)(3)  
☒ Other: Request to Approve Proposed Drawing Corrections  
☒ Other: Letter to PTO Draftsman: Submission of Formal Drawings  
☒ Other: Advance Notification Postcard  
☒ Other: Credit Card Payment Form (PTO-2038)  
☒ Other: The name of the assignee is: Broadcom Corporation

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☒ Continuation ☐ Divisional ☐ Continuation-in-Part (CIP) of prior application No: 10/163,871  
Prior application information: Examiner Amanda T. Le Art Unit: 2634

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 19. CORRESPONDENCE ADDRESS

☒ Customer Number 26111

or ☐ Correspondence address below

NAME	STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.				
	Attorneys at Law				
ADDRESS					
CITY		STATE		ZIP CODE	
COUNTRY		TELEPHONE		FAX	(202) 371-2540

NAME (Print/Type)	Robert Sokol	Registration No. (Attorney/Agent)	36,013
SIGNATURE		Date	12/1/03

120103

**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

Complete if Known	
Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Thomas D. Kwon
Examiner Name	To Be Assigned
Art Unit	To Be Assigned
Attorney Docket No.	1875.1540002/RES/LMY

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT (\$)**896.00**METHOD OF PAYMENT (check all that apply)**☐ Check ☒ Credit card ☐ Money Order ☒ Other\*\* ☐ None  
\*\* Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.☐ Deposit Account  
Deposit Account Number 19-0036

Deposit Account Name: Sterne, Kessler, Goldstein &amp; Fox P.L.L.C.

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any over payments☐ Charge any additional fee(s) during the pendency of this application☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1001	770	2001	385	Utility filing fee	770.00
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1105	160	2005	80	Provisional filing fee	

**SUBTOTAL (1) (\$)** 770.00**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

	Extra	Fee from below	Fee Paid
Total Claims 17 - 20** =	0	X 18 =	0
Indep. Claims 4 - 3** =	1	X 86 =	86.00
Multiple Dependent	0	=	0

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	**Reissue independent claims over original patent
1205	18	2205	9	**Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2) (\$)** 86.00

\*\*or number previously paid, if greater; For Reissue, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Small Entity

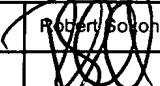
Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1502	50	2052	25	Surcharge-late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	40.00
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\* Reduced by Basic Filing Fee Paid

**SUBTOTAL (3) (\$)** 40.00**SUBMITTED BY**

Complete (if applicable)

Name (Print/Type)	Robert Solovh	Registration No. (Attorney/Agent)	36,013	Telephone	202-371-2600
Signature		Date	12/1/03		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. SKGF\_DC1:195139.1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

**Kwon *et al.***

Appl. No.: *To Be Assigned*  
(Continuation of U.S. Appl. No. 10/163,871; Filed: June 7, 2002)

Filed: *Herewith*

For: **Receiver Having Decisional  
Feedback Equalizer with  
Remodulation and Related  
Methods**

Confirmation No.: *To Be Assigned*

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1875.1540002/RES/LMY

**Authorization To Treat A Reply As Incorporating An Extension Of  
Time Under 37 C.F.R. § 1.136(a)(3)**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

The U.S. Patent and Trademark Office is hereby authorized to treat any concurrent or future reply that requires a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. The U.S. Patent and Trademark Office is hereby authorized to charge all required extension of time fees to our Deposit Account No. 19-0036, if such fees are not otherwise provided for in such reply.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Robert Sokohl  
Attorney for Applicants  
Registration No. 36,013

Date: 12/1/03

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600



Robert Greene Sterne  
Edward J. Kessler  
Jorge A. Goldstein  
David K.S. Cornwell  
Robert W. Esmond  
Tracy-Gene G. Durkin  
Michele A. Cimbala  
Michael B. Ray  
Robert E. Sokohl  
Eric K. Steffe  
Michael Q. Lee  
Steven R. Ludwig  
John M. Covert  
Linda E. Alcorn  
Robert C. Millonig  
Lawrence B. Bugaisky  
Donald J. Featherstone  
Michael V. Messinger

Judith U. Kim  
Timothy J. Shea, Jr.  
Patrick E. Garrett  
Heidi L. Kraus  
Edward W. Yee  
Albert L. Ferro  
Donald R. Banowitz  
Peter A. Jackman  
Molly A. McCall  
Teresa U. Medler  
Jeffrey S. Weaver  
Kendrick P. Patterson  
Vincent L. Capuano  
Eldora Ellison Floyd  
Thomas C. Fiala  
Brian J. Del Buono  
Virgil Lee Beaton  
Kimberly N. Reddick

Theodore A. Wood  
Elizabeth J. Haanes  
Bruce E. Chalker  
Joseph S. Ostroff  
Frank R. Cottingham  
Christine M. Lhulier  
Rae Lynn Prengaman  
Jane Shershenovich  
Lawrence J. Carroll  
George S. Bardmesser  
Daniel A. Klein  
Jason D. Eisenberg  
Michael D. Specht  
Andrea J. Kamagie  
Tracy L. Muller  
Jon E. Wright  
LuAnne M. Yuricek  
John J. Figueroa

Ann E. Summerfield  
Tiera S. Coston  
Aric W. Ledford

**Registered Patent Agents\***

Karen R. Markowicz  
Nancy J. Leith  
Helene C. Carlson  
Gaby L. Longworth  
Matthew J. Dowd  
Aaron L. Schwartz  
Mary B. Tung  
Katrina Y. Pei Quach  
Bryan L. Skelton  
Robert A. Schwartzman  
Timothy A. Doyle  
Jennifer R. Mahalingappa

Teresa A. Colella  
Jeffrey S. Lundgren  
Victoria S. Rutherford  
Eric D. Hayes

**Of Counsel**  
Kenneth C. Bass III  
Evan R. Smith

\*Admitted only in Maryland  
\*Admitted only in Virginia  
\*Practice Limited to  
Federal Agencies

December 1, 2003

**WRITER'S DIRECT NUMBER:**

(202) 772-8677

**INTERNET ADDRESS:**

RSOKOHL@SKGF.COM

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Mail Stop Patent Application**

Re: U.S. Non-Provisional Utility Patent Application  
(Continuation of U.S. Appl. No. 10/163,871; Filed: June 7, 2002)  
Appl. No. To Be Assigned; Filed: Herewith  
For: **Receiver Having Decisional Feedback Equalizer with Remodulation  
and Related Methods**  
Inventors: Kwon *et al.*  
Our Ref: 1875.1540002/RES/LMY

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office:

1. Fee Transmittal Form (PTO/SB/17);
2. Utility Patent Application Transmittal Form (PTO/SB/05);
3. U.S. Utility Patent Application entitled:

**Receiver Having Decisional Feedback Equalizer with Remodulation and  
Related Methods**

and naming as inventors:

Thomas D. Kwon  
Jonathan S. Min  
Fang Lu  
Thomas J. Kolze

the application consisting of:

- a. An Application Data Sheet (37 C.F.R. § 1.76);
- b. A copy of the executed Declaration as filed in U.S. Appl. No. 10/163,871 (*in three parts*);
- c. A specification containing:
  - i. 16 pages of description prior to the claims;
  - ii. 8 pages of claims (30 claims); and
  - iii. a one (1) page abstract; and
- d. 9 sheets of drawings: (Figures 1, 2, 3, 4, 5, 6, 7-8, 9, and 10);
4. Authorization to Treat a Reply As Incorporating An Extension of Time Under 37 C.F.R. § 1.136(a)(3);
5. Recordation Form Cover Sheet;
6. A copy of the executed Assignment to Broadcom Corporation as filed in U.S. Appl. No. 10/163,871, recordation of which is hereby respectfully requested (*in three parts*);
7. A copy of the executed Power of Attorney from Assignee as filed in U.S. Appl. No. 10/163,871;
8. A copy of the executed Certificate Under 37 C.F.R. § 3.73(b) from Assignee as filed in U.S. Appl. No. 10/163,871, with a copy of the Assignment (*in three parts*) attached;
9. A Preliminary Amendment Under 37 C.F.R. § 1.115;
10. Request to Approve Proposed Drawing Corrections with four (4) sheets of drawings (Figures 2 and 5);
11. Letter to PTO Draftsman: Submission of Formal Drawings with ten (10) sheets of formal drawings (Figures 1-10);
12. An Information Disclosure Statement (IDS);

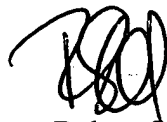
Commissioner for Patents  
December 1, 2003  
Page 3

13. PTO-1449 Form (1 page) citing five (5) documents;
14. Copies of the cited documents;
15. Two (2) return postcards; and
16. Credit Card Payment Form (PTO-2038) for \$896.00 to cover:
  - \$ 770.00 Filing fee for patent application;
  - \$ 40.00 Assignment recordation fee; and
  - \$ 86.00 Fee for excess claims.

It is respectfully requested that, of the two attached postcards, one be stamped with the filing date of these documents and returned to our courier, and the other, prepaid postcard, be stamped with the filing date and unofficial application number and returned as soon as possible. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl  
Attorney for Applicants  
Registration No. 36,013

RES/LMY:krd  
Enclosures

SKGF\_DC1:195142.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

**Kwon *et al.***

Appl. No.: *To Be Assigned*  
(Continuation of U.S. Appl. No. 10/163,871; Filed: June 7, 2002)

Filed: *Herewith*

For: **Receiver Having Decisional  
Feedback Equalizer with  
Remodulation and Related  
Methods**

Confirmation No.: *To Be Assigned*

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1875.1540002/RES/LMY

**Request to Approve Proposed Drawing Corrections**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Attached are copies of **two (2)** sheets of drawings, containing proposed corrections to **Figures 2 and 5**, shown in red. Clean replacement drawings are also provided. The proposed changes are identical to those accepted in the parent application. The proposed changes add no new matter to this application. Applicant requests that the Examiner approve the proposed corrections. Also submitted herewith are Formal Drawings, which correspond to the changes noted.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl  
Attorney for Applicants  
Registration No. 36,013

Date: 12/1/03

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

**Kwon *et al.***

Appl. No.: *To Be Assigned*  
(Continuation of U.S. Appl. No. 10/163,871; Filed: June 7, 2002)

Filed: *Herewith*

For: **Receiver Having Decisional  
Feedback Equalizer with  
Remodulation and Related  
Methods**

Confirmation No.: *To Be Assigned*

Art Unit: *To Be Assigned*

Examiner: *To Be Assigned*

Atty. Docket: 1875.1540002/RES/LMY

**Letter to PTO Draftsman: Submission of Formal Drawings**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

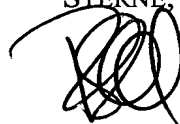
Sir:

Submitted herewith are **ten (10)** sheets of formal drawings with **Figures 1-10**, corresponding to the informal drawings submitted with the above-captioned application. Identification of the drawings is provided in accordance with 37 C.F.R. § 1.84(c). Acknowledgment of the receipt, approval, and entry of these formal drawings into this application is respectfully requested.

It is not believed that an extension of time is required, other than any already provided herewith. However, if an extension of time is needed to prevent abandonment of the application, then such extension of time is hereby petitioned. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl  
Attorney for Applicants  
Registration No. 36,013

Date: \_\_\_\_\_

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

SKGF\_DC1:193182.1